

Managing acute and cancer pain in hospitalised patients

Then

In 2003,[1] we reported that:

Postoperative and cancer pain can be well controlled in 80 to 90 per cent of patients when treatment is tailored to individual circumstances.

The barriers to effective pain management in health care institutions have been well documented, and isolated studies confirm their presence in the Australian context. A study at a Sydney teaching hospital found that 6 out of 10 cancer inpatients were in moderate to severe pain.

Now

A review of developments from 2004 to 2007 has found that:

Knowledge about pain, its management and the barriers to adequate pain management continues to advance. However, as guidelines are revised and strategies are put into place, there is little evidence to tell us whether the resulting improvements in knowledge and attitudes have led to improvements in clinical practice.[2] Our knowledge of how well pain is managed and whether this is improving remains inconsistent.[2]

Many initiatives focus on the assessment and documentation of pain, rather than the management of pain.[2] Routine scoring of pain is the first step in improving pain management for patients, and improvement in this area is relatively easy to evaluate. However, determining whether pain management practices have improved is not as easy.[3] One reason for this is the absence of a clear definition of what constitutes optimal pain management. Some guidelines offer definitions, but these rarely provide a quantifiable standard that would allow reliable and meaningful measurement and comparison. Resources such as the PROSPECT (procedure-specific postoperative pain management) recommendations provide specific, actionable advice on optimal pain management, compared with more generalised pain management guidelines.

In summary, we need clarity on what constitutes optimal pain management, and reliable data to measure current practice and improvements.

What has changed since Volume 1?

Best available evidence

Inadequate pain management in hospitals has long been recognised as an important, and largely avoidable problem in Australia and around the world.[2] Many barriers to effective routine pain management exist at the system, organisational, clinician and patient levels.[3]

In 1999, when the National Health and Medical Research Council (NHMRC) published its first acute pain management guidelines, *Acute pain management: scientific evidence*,[4] the US Agency for Health Care Policy and Research (now the AHRQ) was the only other organisation worldwide to have produced evidence-based documents on the treatment of acute pain.[5]

Knowledge about acute pain management has grown rapidly in recent years. The Australian and New Zealand College of Anaesthetists (ANZCA) and ANZCA's Faculty of Pain Medicine established a working party to produce a revision of the NHMRC's 1999 acute pain guidelines to incorporate the substantial amount of new evidence published since 1999. The revised guidelines[6] were launched at the World Pain Congress in Sydney in August 2005 and have been formally endorsed by the International Association for the Study of Pain (IASP) and the Australian Pain Society. There

are plans for the guidelines to be revised again in 2010.[5] ANZCA has also released a guide for patients.

Similarly, in 2005 the American Pain Society (APS) revised and expanded its 1995 *Quality Improvement Guidelines for the Treatment of Acute Pain and Cancer Pain* on the basis of a systematic review of published studies. The revised recommendations encourage structured, multilevel, system approaches (sensitive to the type of pain, population and care setting) encompassing prompt recognition and treatment of pain, involvement of patients and families in the pain management plan, improved treatment patterns, regular reassessment and adjustment of the pain management plan as necessary, and measurement of processes and outcomes of pain management.[7]

In 2005, the APS also released a new evidence-based clinical practice guideline, *Guideline for the management of cancer pain in adults and children*. [8] Many of the recommendations in this guideline continue to be based on B, C or D levels of evidence or consensus due to the lack of a stronger evidence base for cancer pain management.[9] This updated guideline departs from traditional cancer pain management approaches in regard to pharmacological management, where the use of an

algorithm is recommended, rather than the World Health Organization (WHO) analgesic ladder. The reasoning behind this decision is that “cancer pain rarely progresses in the stepwise fashion that the WHO ladder implies.”[9]

Areas of cancer pain management in which new evidence has recently emerged include the potential for opioids to produce neurotoxicity;[10] the potential for opioid rotation to help some patients;[10] the importance of differentiating between persistent and breakthrough cancer pain (a temporary flare of pain that happens in addition to relatively well controlled baseline pain);[11] and the importance of including both types of pain, where appropriate, in cancer pain management plans.[9]

The evidence base for pharmacological management of cancer pain is growing, with several new reviews being published in The Cochrane Library, including titles such as: *Methadone for cancer pain*;^[12] *NSAIDs or paracetamol, alone or combined with opioids, for cancer pain*;^[13] *Opioids for the management of breakthrough (episodic) pain in cancer patients*;^[14] and *Comparative efficacy of epidural, subarachnoid, and intracerebroventricular opioids in patients with pain due to cancer*.^[15]

In the area of postoperative pain, the PROSPECT working group has developed a methodology for producing procedure-specific recommendations for post-operative pain management.^[16] PROSPECT’s recommendations, along with supporting evidence from systematic literature reviews, are published on its website, www.postoppain.org.

Current practice

Estimates of the prevalence of unrelieved or under-treated pain vary, depending on how pain is quantified and analysed. Australian studies within institutional settings have found that 25 to 33 per cent of patients had significant pain (i.e. >3/5 or >5/10) despite effective medications and therapies being available.^[3]

Pain is one of the most feared consequences of cancer for patients and their families.^[10] Moderate to severe cancer pain occurs in around 50 per cent of patients who are receiving active cancer treatment, and in 80 to 90 per cent of patients with advanced disease. These statistics are well documented in numerous epidemiological studies around the world, and have not changed in the past 30 years. At least 1 in 2 cancer patients who walk into an outpatient setting experience unrelieved pain.^[9]

Barriers to adequate pain management have been well documented in the literature, and remain similar to those mentioned in the NICS *Evidence Practice Gaps Report, Volume 1*.^[1] Examples include:

System barriers

Lack of institutional commitment^[2] or resources;^[17] regulatory concerns;^[2] insufficient access to or reimbursement for interdisciplinary care;^[2] and issues around professional territory.^[17]

Clinician barriers

Inadequate assessment or underestimate of patients’ pain by clinicians;^[3] inappropriate prescribing or under-administering of analgesia;^[3] lack of awareness and education of health care professionals;^[2,3,17] and misconceptions about analgesic side effects (particularly with opioids).^[3]

Patient barriers

Inadequate knowledge;^[2] cognitive or language communication barriers;^[3,18] patient reluctance to report pain^[3] or to take analgesia;^[3] fear of addiction, side effects from analgesics or injections;^[3,18] misconception that pain indicates disease progression^[3,18] or that pain is inevitable;^[3] and patients not wanting to complain or interrupt staff^[3,18] or distract the clinician from treating the disease.^[3,18]

An Australian study used the Ward and colleagues tool^[19] (a validated, self-report questionnaire) to assess patient-related barriers to adequate pain management to see which of the patient-related factors included in the tool are important in an Australian population receiving comprehensive oncology management. This study found that one-third of patients had clinically significant pain that interfered with daily activities, despite analgesic use. Important concerns for this group were related to fear of addiction (76 per cent), fear that pain signals disease progression (71 per cent) and concern about side effects of medication (67 per cent). These concerns correlate closely with those identified in the original US study.^[18,19]

Our knowledge of just how well pain is managed and whether it is improving, remains inconsistent at best.^[2] There is little data on the frequency of assessment and documentation of pain scores, or on the adequacy of pain management practices.

A 2007 systematic review of institutional interventions designed to improve assessment and management of cancer pain in hospitalised patients identified effective interventions that improved both nursing knowledge and assessment of pain. However, it was unable to identify any systematic, hospital-wide intervention that resulted in improvements in patients’ pain severity.^[20]

Initiatives to help close the gap

Increasing awareness of the problem of inadequate pain management has been demonstrated by a number of high level activities both in Australia and abroad.

Pain management pilot program

In early 2004, the National Institute of Clinical Studies (NICS) initiated a pilot program. This program took an institution approach to pain management, with the aim of improving pain management by integrating routine observation, scoring and management of pain into the day-to-day system of care in hospitals (treating pain as the 5th vital sign). The program was run in eight hospitals nationally, with a focus on cancer services; and used a variety of interventions adapted to local circumstances. The interventions were targeted mainly towards nurses, and to medical staff and allied health staff to a lesser degree.[3]

Over the year, the proportion of patients with documented pain scores on admission to the wards improved from typically less than 20 per cent at baseline, to 60 to 100 per cent. Improvements were also seen at most sites in the proportion of patients with documented daily pain

scores.[3] This program has helped raise the profile of the issue of pain management at hospital executive level and through organisational governance interventions. Awareness has also been raised at a national level through consultation with peak pain bodies and other general publicity.[3]

NICS Emergency department pain initiative

In 2007, the NICS Emergency Care Program undertook a national audit to identify the practice gap in emergency department (ED) pain management with reference to the specific ED recommendations in the NHMRC approved guidelines *Acute pain management: Scientific evidence (2nd edition)*. [6] Results of the audit will be published in 2008.

In 2008, the NICS Emergency Care Program, in consultation with the emergency care field, will coordinate the implementation phase of the national pain initiative with a focus on interventions targeting identified barriers to ED pain management.

Examples of other recent activities and initiatives in Australia and worldwide include:

- Resources developed by the Victorian Quality Council (VQC), such as an Acute Pain Management Measurement Toolkit,[20] which includes VQC's *Operational principles for acute pain management*. [21] The toolkit is based on evidence of current best practice in pain assessment, and aims to help health services to measure the effectiveness of acute pain management at both individual patient and wider system levels. The toolkit was disseminated to all Victorian health services in March 2007, with regional orientation and training sessions planned to follow. The VQC also planned to fund a limited number of Victorian health services to demonstrate the application of the toolkit.[20]
- The 3rd edition of IASP's *Core curriculum for professional education in pain*[22] includes a section on acute and postoperative pain based on the revised NHMRC acute pain management guidelines. This curriculum is freely available online, and is used in pain education in many countries around the world.[5]
- The National Prescribing Service (NPS) established the Acute Postoperative Pain (APOP) Project – a quality improvement initiative targeting acute postoperative pain management. The project focuses on pain assessment and safe, effective prescribing of analgesics (including those prescribed on discharge). It will include a baseline audit followed by an educational intervention and a further audit.[23] Sixty-three hospitals across Australia are participating in APOP. The baseline audit is complete, with data analysis ongoing.[24]
- In June 2006, the Australia Government provided seed funding to support the development of the Palliative Care Clinical Studies Collaborative (PaCCSC). Many medicines used for pain relief within hospitals are not currently registered by the Therapeutic Goods Administration (TGA) for use in palliative care, which means they cannot be listed on the PBS for use in palliative care. The PaCCSC's role is to generate the scientific evidence needed to list medicines on the PBS for palliative care indications.[25]

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